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AN
E S S A Y
ON THE
PRESERVATION
OF THE
HEALTH OF PERSONS
EMPLOYED IN
AGRICULTURE,
AND ON
THE CURE OF THE DISEASES
INCIDENT TO THAT WAY OF LIFE.

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ADVERTISEMENT.

THE following Piece has already appeared in the Fourth Volume of the Letters and Papers published by the Society instituted at Bath for promoting *Agriculture, Arts, Manufactures, &c.*

As this Essay is of a general nature, and equally applicable to every part of the country, and written upon a subject of great importance, it has been thought adviseable to reprint it separately, that it might be had on easy terms by those who do not chuse to purchase the publication at large, in which it is at present contained.

INTRO.

ADVERTISING MEMORIAL

The following Paper has already ap-
peared in the *Quarterly* volume of the
Society and is now published by the Society
individually as Paper for promoting the
cause of the Abolition of Slavery.

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INTRODUCTION.

THE Preservation of the Health of Persons employed in Agriculture, is, abstracted from moral and religious considerations, of greater national importance than any improvement either in the theory or practice of the art can lay claim to.

Without Artificers, it is obvious, that there can be no manufacture of any kind, and if the workmen are inferior in number to the proportion required, the business must languish, or be contracted in its extent. An attempt, therefore, to correct the errors, or to restrain the imprudence, with respect to such matters as concern Health, of those employed in this branch, can need no apology.

I wish I could say, that the execution of the work were equal to the importance of the subject; but, however inferior it may be, it contains, I trust, some useful cautions, and I hope some hints that may lead to farther improvement.

I have judged it eligible to address the present work to those who employ the persons for whose immediate use the cautions are principally intended, rather than to attempt to instruct the people themselves. Few of the latter have much time for reading, and little capacity for instruction in matters of reasoning. I have, therefore, ventured

ventured to direct myself to those from whom information of this kind would be likely to come with the greatest authority, on account of their immediate connection and influence.

The Reverend Clergy will, I trust, excuse my offering a hint to them on this occasion. They are almost universally persons of liberal education, and more general knowledge, than falls to the lot of most of their neighbours. Would it not be an agreeable as well as an useful method of employing these advantages, to turn their thoughts towards the practical part of Medicine? The Natural History of the Human Body affords a more useful subject of investigation, than is done by stones, spiders, or shells; and tho' medicine, taken at large, is an arduous and deep study, yet it is practicable enough to gain sufficient knowledge of it to be of great service in many cases, especially such as occur most frequently among persons of the description here alluded to. The disorders incident to such are in general simple in their nature, and seldom exhibit at the same time such apparently contrary, and of course perplexing indications, as those which are the offspring of luxury and refinement.

All the disorders indeed that occur among such persons are not equally simple; but good sense and moderate information will suggest the propriety of asking, in such cases, the advice of persons whose professional education and attention have led them to a deeper knowledge of the subject.

Advantages

Advantages which Persons employed in Agriculture possess in point of Health.

THE way of life of persons engaged in agricultural business, exempts them from many of the disorders to which other occupations are liable. Many of the employments by which great numbers of people are supported, are injurious to health, by being either too sedentary, or too laborious; by which the powers of nature are either suffered to languish for want of exertion, or worn out prematurely by over-fatigue. But the business of husbandry is not necessarily connected with either of these extremes. The labour is indeed constant, but not in general so violent as either to exhaust the strength by over-straining, or to excite any weakening degree of discharge by perspiration. The variety likewise of the necessary business is a favourable circumstance for those who are employed in it, as thereby the different muscles of the body are exercised, and various postures used, which contribute to strengthen the body more generally, and also relieve the mind by a diversity of attentions.

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A farther advantage attending the nature of labour in husbandry is, that it is performed in the open air, which in general must be pure and wholesome, as being free from smoke and other vapours arising from inflamed bodies, and also from putrid exhalations both of the animal and vegetable kind, which are well known to taint the air in large cities, and in manufactories of every kind, where great numbers of people are assembled in a small compass.

The surface or staple of the soil, which is the subject of these operations, does not give out any noxious odours, like many of the mineral or metal-line substances employed in several manufactories, but is at least perfectly innocent, and has even been thought to produce effluvia rather favourable than injurious to health. The number of vegetables, likewise, with which persons concerned in such employments are generally surrounded, contribute to render the air which is respired pure and salubrious, by absorbing the putrid and phlogistic substances that float in the atmosphere.

The diet of persons who live in the country is, I think, in general more wholesome than that of those who inhabit towns. A large portion of it consists of fresh vegetables and milk, which, though not excluded from the food of those who live in towns, are enjoyed in much greater plenty and higher

higher perfection in rural situations. These correct the putrefactive disposition of animal food, and tend to keep up the proper secretions and evacuations, and to maintain that balance in the animal system, upon which health so much depends.

The regular hours necessary to be observed by those who follow country business, are perhaps of more consequence than any of the other articles, however important those may be.

It is an old and a common opinion, that the external air is much less salubrious during the night than the day; and this opinion, which probably was at first drawn from observation, seems to be confirmed by chemical experiments, which tend to shew that the air exhaled by vegetables, whilst the sun is above the horizon, is much more pure and fit for respiration than that which issues from them in the absence of the sun. The ill effects of the latter are probably best avoided, by the human body being in a state of repose and insensibility, which render it less liable to be affected by such impressions. The morning air, on the contrary, so celebrated both by poets and philosophers for its benign and cheering effects upon the mind and body, is enjoyed in high perfection by persons in this way of life; and the advantages they derive from thence in point of health are probably very great.

I have been informed from the best authority, that a person in high station some years ago, who was very desirous to protract his existence in this world as long as he was able, made every possible enquiry concerning the regimen and manner of life of those persons who had arrived at a great age, but found no circumstance common to them all, save that they all had observed great regularity in point of hours; both rising early, and going early to rest.

Freedom from care and anxiety of mind is a blessing, which I apprehend such people enjoy in higher perfection than most others, and is of the utmost consequence. Mental agitations and eating cares are more injurious to health, and destructive of life, than is commonly imagined; and could their effects be collected, would make no inconsiderable figure in the bills of mortality.

The simplicity and uniformity of rural occupations, and their incessant practice, preclude many anxieties and agitations of hope and fear, to which employments of a more precarious and casual nature are subject. Nor is it the least advantage to health, accruing from such a way of life, that it exposes those who follow it to fewer temptations to vice, than persons who live in crowded society. The accumulation of numbers always augments in some measure

measure moral corruption, and the consequences to health of the various vices incident thereto, are well known.

*Disorders to which Agricultural Persons are subject
from the Nature of their Employment.*

THE life of husbandmen and farmers, though in general healthy, has, like other situations, some circumstances attending it which produce disorders. These may be considered in several points of view, according to their causes.

First, then, the nature of their employment often exposes such persons to the vicissitudes of weather. These, perhaps, may be of many very different kinds, when considered with regard to the changes in the nature of the atmosphere; but this is an enquiry too deep and obscure for a popular treatise, like the present, and I shall only take notice of such as are obvious and certain. These are three in number, *cold, heat, and moisture*; to which may be added, a combination of the last of these with either of the former.

Exposure to a great degree of cold may produce inflammatory disorders of different sorts, but principally, though not altogether, of the topical kind.

Thus the inflammatory sore throat, rheumatic pains in the teeth and face, inflammations of the eyes, and coughs, with pain of the breast, attended with fever, are all complaints liable to be produced by cold air, either externally applied, or drawn in by the breath. To these may be added, the rheumatism, both of the acute and chronic kind, which, though sometimes a local disorder, is often general, and may be frequently traced to this cause.

Cold, likewise, when great, and long continued, is apt to produce disorders of an opposite nature to those just mentioned. Paralytic affections are frequently caused by it, especially in the lower extremities, which are generally the most exposed to its influence.

Heat is another source of disease to the husbandman, who often experiences its bad effects in time of harvest. Inflammatory fevers are often the consequence of heat and labour, and sometimes such as are attended with local inflammation, as pleurisy, peripneumonics, inflammations of the bowels, &c. Sometimes the brain is primarily affected, probably from the immediate effects of the sun's rays upon the head. The eyes are also liable to be inflamed from exposure to strong light. Moisture, especially when combined with either of the above extremes of temperature, is productive of several disorders.

People

People who work in the open air, and oftentimes at a distance from shelter, must necessarily be exposed to casual showers at every season of the year. If these happen in cold weather, they aggravate the bad effects of cold, by conveying it to a closer contact with the skin, and also by the generation of cold by evaporation. If rain fall suddenly at a warm season of the year, its effects are, I apprehend, less dangerous than in cold weather to those who are wet with it; nevertheless, it is not void of hazard, especially if the persons exposed to it have been previously much heated, either by the weather or exercise.

The evaporation of the moisture generates a degree of cold, which is greater as the evaporation is quicker. This then is one reason, why the danger of wet clothes is greater, as the body is more heated.

Whether moisture, simply considered, has any other effect than as increasing the influence of cold, is not clearly determined. But whatever doubts we may entertain, concerning the moisture of the atmosphere, there is no question that some kinds of moisture, to which persons who labour in this way are sometimes exposed, has specifically noxious qualities.

The draining of marshy grounds, however it may in its consequences benefit the health of those who
live

live in the neighbourhood, has been long observed to be but an unwholsome employment for those who work at it. Yet this is frequently a necessary piece of business for the farmer, as well as the cleansing of ditches, which is in some measure of the same kind, though in general less apt to do mischief. The moisture to which people thus employed are exposed, must not be considered as mere humidity; but as humidity combined with putrefying substances, and capable of diffusing the effects of such over those who are within a certain distance of it.

Marshes are well known to produce disorders, even over a considerable extent of country, and must of course be particularly liable to affect those who break up any part of them. Putrid complaints of various kinds may be produced by these exhalations; but I apprehend, the intermittent fever is the usual consequence; the frequent appearance of which, in moist and fenny countries, has been universally observed.

Such are the diseases to which people employed in husbandry are occasionally liable from the nature of their occupation. But they are subject to a much greater number from their own imprudence, of which I shall next speak.

Disorders

Disorders to which Persons employed in Agriculture are liable from their own imprudence.

AND first, Of *their wanton exposure of themselves to the vicissitudes of Heat and Cold.* It is no uncommon thing for people who work in harvest, when violently heated by the weather and by labour, to drink large draughts of some cold thin liquor, as water; milk, whey, buttermilk, and such like. This, if taken in great quantity, has been sometimes known to suppress the powers of life altogether, and to produce an almost instant death.

This however, I believe, seldom happens; but the bad effects of this practice appear in other ways sufficiently serious to discourage such hazardous experiments. It is not uncommon for a violent fever to be the consequence, which is frequently attended with inflammation of the stomach or bowels; both which are disorders of the most dangerous nature. But should they escape incurring any acute complaint, it is common for them to be affected with a sense of weight and sickness at the stomach, which continues several weeks, and is at last relieved by vomiting; this, however, does not put a period to the complaint, as it is generally followed by an itching eruption on the skin in blotches, in various parts of the body, which proves to be the leprosy—a loathsome and filthy disease, and very difficult of cure!

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I have had an opportunity of seeing at the Bath Hospital, a great number of people thus afflicted, and am satisfied that they all, without exception, owed their disease to the application of cold, in some form or other, to the body when in a heated state.

Labouring persons are very apt, when they leave off any work in which they have been much heated, to remain some time at rest in the open air before they put on their clothes. This is a very imprudent practice, and frequently produces bad effects, especially in bringing on coughs, and other disorders of the breast, which oftener owe their rise among the common people to this than any other cause.

Neglect of changing their clothes when wet, is also a great source of disorder among husbandmen. To remain in wet clothes when the body is at rest, subjects the person who is so imprudent as to suffer it, to the united bad effects of cold and moisture. Much worse consequences may however be expected; when they who are heated by labour lie down to sleep, as they often do, in their wet clothes. The diminution of the force of the circulation and other powers of life, which always takes place during sleep, causes the bad effects of cold to operate with much greater danger to health and life. This hazard is much aggravated, if they add to this imprudence by sleeping on the wet ground. This not
only

only communicates an additional moisture and cold, but is perhaps still more prejudicial from the nature of the exhalation. It is the opinion of a physician of the greatest eminence, that the vapour which arises from moist earth is the cause of the most dangerous fevers. Those, therefore, who put themselves wantonly in the way of such danger, are guilty of little less than suicide.

Excess, or Intemperance in Diet, is another source of disorder to people in this way of life. This is common indeed in some measure to all ranks, but in several respects it is particularly applicable to those who are employed in husbandry. Air and exercise are well known to sharpen the appetite; and as these advantages are incident to this way of life, it may be expected, that some excess should now and then take place. The diet of such persons is indeed in general too spare and plain to offer any great incentive to indulgence in point of quantity, but opportunities sometimes offer for a more plentiful allowance of food, and more inviting to the palate. On such occasions the lower ranks of people exert little consideration or prudence. They have scarcely any view beyond the gratification of the present moment; and if a full indulgence of appetite is not exercised, they deem it a loss of an opportunity for the enjoyment of so much happiness.

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It is needless to enumerate in this place all the complaints that excess in quantity of food may bring on; it is sufficient to say, that it has often produced sudden death, and where its violent effects have not been so immediate, has laid a foundation for bad health during the remainder of life. — To this head may be referred the brutal practice of eating enormous quantities for a wager, or out of bravado. It is needless to descant upon so odious a subject, farther than to say, that such things sink men below the level of beasts in grossness and folly, not to mention the scandalous immorality of such actions.

The diet of people employed in husbandry, does not admit of much luxury respecting its quality; there are however some things which come within the reach of these people, and which they regard as gratifications, and of course are apt to take in too great quantity. Of this kind are some of the autumnal fruits, which in some years are produced so largely, as to be of scarcely any pecuniary value. Of these, plumbs, especially such as are of the coarser and more austere sorts, are the principal. It is a common observation, that in years wherein there is an abundance of such fruits, purgings, colicks, and most other complaints of the stomach and bowels, are very common. It is proper here to observe, that the incautious manner in which these

these fruits are devoured, especially at their first coming in, causes many of the stones to be swallowed;—a practice extremely hazardous. The history of physic affords many examples of the worst consequences arising from such bodies lodging in the stomach and bowels. Sometimes, when the accumulation of them has been considerable, they have obstructed the alimentary canal altogether, and produced a miserable death in a short time; at others, they have made their way through different parts of the body, and caused either a long and painful illness, or death, by the hectic fever attending internal suppurations.

Pears, if eaten too freely, are apt, as well as the stone fruits, to disorder the stomach and bowels; but they are less dangerous, and not so often swallowed in such quantities as to be materially prejudicial to life or health.

Nuts are perhaps, upon the whole, the most dangerous of any of the fruits that are likely to fall into the way of this rank of people. When eaten in large quantity, they have been often known to lodge in the stomach, and to be incapable of being removed from thence by any medicine, and of consequence have put a speedy end to life. When taken in less quantity, they are found to oppress the breathing, and to produce vomiting and bowel complaints.

HOFFMAN

HORSMAN observes, that dysenteric complaints are always most common in those years in which the harvest of mits is plentiful. Excess in diet, however, is more frequently committed in liquors than in solids.

It is observed of mankind in general, that they have a natural fondness for fermented or spirituous liquors, and a certain proportion appears to be allowable and even necessary for persons who undergo hard labour. But the healthy quantity is apt to be exceeded when opportunity offers, and excess of this kind is more hurtful than a defect of such gratifications. I need not here enlarge on the consequences of *drunkenness* to health. Fevers, dropries, consumptions, apoplexies, and many other miserable disorders, are well known to follow such a course. The want of money among labouring people, indeed, often prevents the bad effects of a habit of this kind, but occasional opportunities occur which are laid hold on with great avidity, and it is far from uncommon to find death the immediate follower of such licentious indulgence.

Diet, however, is not the only article which such persons are liable to carry to excess. It is common to see exertions of a more liberal kind pursued to too great length. The caprice of emulation will often produce instances of labour, which duty, and

the urgency of circumstances, might in vain solicit. The bursting of some of the blood-vessels, particularly those of the head, lungs, or stomach, nephritic complaints, and intestinal ruptures, have all of them followed such ill-judged and ostentatious display of strength and corporeal abilities.

Directions relative to the Prevention and Cure of Disorders incident to Persons employed in Agriculture.

AFTER the above enumeration of complaints to which persons thus employed are liable, it is proper I should offer something on the subject of their cure or relief. This I shall consider in two views; the first as to what regards the prevention of disorders, and the second as to what regards their cure.

Persons that work in husbandry are necessarily exposed to the weather in both its extremes of temperature. The ill effects therefore of both, it behoves us to counteract. Cold in this climate is most necessary to be attended to, as its operation is of longer duration; several months in the year often requiring us to be on our guard against cold, whilst excessive heat scarcely lasts more than a few days. Warmth of clothing is the only method, exercise excepted, by which those who spend their life in the open air can guard against cold, and nothing

thing is more necessary for such persons as are the subjects of the present consideration, than a proper regard to this article.

The woollen cloths of our own country are perfectly well adapted for these purposes, being warm without being too heavy, resisting moisture in a good measure, and even when wetted being less cold to the touch than any other substance. It appears to me that some of the coarser and looser woven fabrics are preferable, both in point of warmth and lightness, to those of a more even surface, and also give more resistance to the penetration of moisture.

Every person who employs men under him in business of this nature, ought to be careful, in point of interest as well as humanity, that his servants have clothing sufficient for the season of the year; otherwise he may expect a proportionable diminution in the labour he expects to be performed, and the loss of many valuable opportunities, especially in precarious weather and seasons.

The same arguments are applicable to those who have the care of the parish poor, whom it would be far more economical as well as humane to preserve in a good state of health, than to suffer them to become victims of diseases which might be prevented.

vented. This caution refers particularly to the youth, who, by being neglected at that time of life, often continue burdens on those persons, whose expences (had the children's health been duly attended to) they might have contributed to diminish.

Friction, properly applied, might prove an excellent preservative against, and even a remedy for many of the bad effects of cold. Would persons chilled with the severity of the weather, rub their bare limbs with woollen cloths for a considerable time after they return home, it would produce a more equable and genial warmth, and contribute more to support the powers of life, than any artificial heat whatsoever. The same operation would probably prevent many of those painful and refractory sores called chilblains, which are so apt to affect the extremities, especially in young people. Should any persons in extreme frost have their limbs or any part of the body actually frozen, the utmost caution must be had, not to bring them near to any fire. The safest method is said to be, to rub the part frozen first with snow, and to continue the friction till some degree of warmth begins to appear, but not to suffer the access of any heat from fire till the warmth from friction takes place. Even then, the part frozen should not be suddenly exposed to the heat of a fire, but rather be continued to be rubbed till the natural sensation and

heat are perfectly restored. If the part frozen be exposed to the heat of a fire whilst in a frozen state, it will undoubtedly mortify.

It seldom happens, that the cold is so intense in this country, as to destroy those exposed to its influence by its direct and immediate operation; yet as great degrees of it now and then take place, it may be proper to caution those who may be in a situation that exposes them for any considerable time together to violent cold, to be cautious how they suffer any propensity to sleep, or drowsiness, to steal upon them. A tendency to sleep in a person who is in such a state, is a certain sign that the cold begins to gain ground on the powers of life, and should therefore excite the strongest efforts to resist it. This may be a difficult task, but is necessary, as life entirely depends upon it.

Heat, though less frequently an object of our care in this respect than cold, nevertheless demands our attention. Though seldom of long duration, the heat is sometimes excessive. I have seen it in the shade, and in a situation exposed to no reflected heat, raise the thermometer to 87 degrees. Such heats, and even considerably less, are too great for laborious work even in the shade, and must be still more injurious to those who are exposed to the sun's rays, which is of necessity the case with those who work in the harvest,

○ In such extremities of temperature, it should not be expected, or even permitted, that the unthinking labourer, who has scarcely any views beyond the present moment, should expose himself to such hazard. Economy, as well as humanity, pleads loudly in behalf of such indulgence.

Inferior, yet still considerable degrees of heat, although they need not preclude work in the open air, still have need of some cautions respecting them. It is not uncommon to observe a degree of impatient anxiety which accompanies some people in every action of life. This prevails among the lower as well as higher ranks of mankind, and often proves a source of fatigue and toil, without expediting labour. Calmness and composure are necessary to the corporeal as well as the mental operations, and tend greatly to prevent the bad effects of excess of stimulus of any kind.

As the head is the part principally exposed to the action of the solar rays, it is particularly necessary to use some defence for that part. Hats are used for this purpose, but the black colour of which they are generally made, causes them to absorb the heat, and of consequence to accumulate it in the very part on which we should least desire it to fall. Hats for working people in hot weather should be made of straw, or some light substance of a white

or pale colour, and with brims sufficiently wide to shelter both the head and the shoulders from the scorching beams of the sun. Even a piece of white paper covering a hat, is no contemptible defence against solar heat.

The eyes should likewise be considered, which exposure to strong light is so apt to injure. This should be guarded against by the brim of the hat being made of a sufficient breadth to shade the eyes, and the inside should also be tinged of either a green or blue colour, but by no means either black or a very light hue.

I have before mentioned the bad effects of cold applied in any way to the body when violently heated. This should serve as a sufficient caution against such imprudencies. It may be useful to add, that as it may be necessary to drink frequently, it prevents much of the bad effects of cold liquor, to eat something solid immediately before any liquid be taken. A few morsels may be sufficient, and the efficacy of the precaution is well known.

The mischievous consequences of cold liquors, drank in such cases, are much aggravated when they are, as is too common, swilled down in enormous draughts. Would thirsty people but have a little patience, and drink small quantities at a time,
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with proper intervals, as of a few minutes, the uneasy sensation would be more effectually removed, and that without any danger to health.

Another caution highly necessary for such persons is, to put on their clothes immediately on their leaving off work, and to do this without any regard to the warmth of the weather. Nothing can be more hazardous than for a person who is heated with labour, and in a strong perspiration, to remain exposed to the wind. The exhalation both from the body and the wet linen, produces a sudden and considerable degree of cold, which is not merely transient, but continues as long as the moisture is suffered to exhale freely into the open air.

I have before remarked the hazard of labouring persons sleeping on the ground during the intervals of their work. This is improper at all times, but particularly dangerous if the ground be any wise moist. Indeed I am of opinion that sleep had better be avoided altogether at such times, as such slumbers produce but little refreshment, and expose the health to unnecessary risque. The body would be sufficiently rested by the cessation of labour, and early hours in the evening would afford a sufficient portion of time to be spent in sleep.

Moisture is equally necessary to be considered in this place, with respect to its effects on the health, as *heat* and *cold*. This, I have before observed, cannot be always avoided, but the bad effects it sometimes produces may generally be obviated. If those who are wet with showers, would be careful to continue their motion and labour whilst they remain in the open air, and to change their clothes on their return home, many of the bad consequences of wet clothes would be prevented. Friction on such occasions might be an excellent preservative against the bad effects of cold and moisture: were the body and extremities that have been so exposed, rubbed strongly for a quarter of an hour with a coarse woollen or linen cloth, immediately on the wet clothes being stripped off, it is probable few bad consequences would follow from the accident.

It is indeed extraordinary this should not be oftener practised in such circumstances than it is. Every labouring man knows the necessity of rubbing horses that have been wet and dirty, and this not only for the purpose of cleansing away the filth, but also for that of preserving a due perspiration and regular warmth on the surface of the body. Bathing the feet in warm weather would also be an useful precaution on such occasions, especially to those who are subject to purging and other disorders of the bowels.

Labouring men are sometimes exposed to moisture of a less innocent kind than such as falls from the clouds. Draining marshy ground is a necessary business, and, as I have before said, exposes the workmen to hazard from the nature of the moisture, as well as from simple humidity. The intermittent fever is the principal, though not the only complaint, work of this kind is liable to bring on, and must be particularly guarded against. It therefore seems proper that such kind of work should, if possible, be performed in the spring, or early in the summer, in which seasons these disorders are not so likely to happen as when the autumn is advanced. And those who work in this way should be sufficiently clothed, and be very cautious to avoid sudden transitions from heat to cold.

Intemperance is particularly dangerous under such circumstances. It is highly proper, and even necessary, that those who perform such kind of labour should have a sufficient, and even liberal allowance, in point of diet; but excess of any kind, in spirituous liquors especially, tends to weaken the stomach, and in consequence thereof, the whole vital system, and to render the body more liable to receive contagion of every kind. This is not a caution founded merely on theory or general principles, but a fact in medicine established beyond all doubt.

Another

Another caution very necessary to be attended to is, that none should go to such kind of labour in the morning before they have taken some kind of food. Somewhat warm is most proper, and, if it can be had, I should prefer animal food. It is difficult to account for, but true as a fact, that warm victuals are greatly more cordial and strengthening to the body, and of course more fit for the support of those who perform laborious work, than the same food if taken when cold.

Cleanliness is an essential article in such circumstances. Would those who work at such employments be careful to wash their hands and feet at their return from work, and to change their linen and stockings as often as their circumstances would admit, it is probable that the hazard would be greatly lessened.

It is necessary to remark, that the above cautions apply at least equally strong to those who superintend such operations, as to those who actually perform them. It is probable that the labour of body and attention of mind, which occupy those who are at work, is no small preservative against the access of contagion of every kind.

As there is reason to believe, that intermittent fevers may in some cases be so far infectious as to be

be communicated from one person to another, it would be proper that when any person should be attacked therewith, such person should be provided with a separate bed during the continuance of his disorder. Cautions of this kind would be the best œconomy, as disorders might then be checked at their first appearance, and prevented from spreading.

Excess, or Irregularity in Diet, is the next subject of these cautions. I have before mentioned some of the disorders likely to be produced hereby, but shall now be more particular. Food may be considered with respect to its *quantity* and its *quality*. The first of these can only be measured by a reasonable attention to the appetite. What may no more than suffice for one man, may be great excess in another; and in general what the appetite leads to, may be considered as the proper standard. But some ignorant rusticks are foolish enough to imagine, that there is a degree of credit annexed to the being able to consume a larger quantity of victuals than is in the power of other men; and this beastly prejudice, which often produces fatal consequences, should be as much as possible discouraged, even by those who practise hospitality among the lower ranks of people.

It is certainly mean to offer to entertain any persons, of whatsoever degree they may be, without producing

producing a sufficient quantity of wholesome provisions; but it is still more inhospitable to encourage any to make such an use of what is provided for them as to endanger health or life, not to mention the scandalous waste which must be caused by it. Still more blameable is the practice of encouraging gluttony by wagers, or offers of reward. They who do this are in fact highly criminal, and in no small degree guilty of the fatal consequences which so often follow such brutal displays of appetite.

Moderation is not only necessary in what regards the quantity of food, but also as it regards the time in which it is consumed. It is necessary to the proper digestion of our food, and of course to the nourishment of the body, that it be taken in gradually, and its texture broken down by chewing.

It would scarcely be credited, were it not known as a fact, that the folly of gluttony has prompted wagers not only on the quantity of food, but also on the time in which it should be swallowed; by accelerating which, all the bad effects of an enormous quantity of victuals must be greatly aggravated. Meat, thus swallowed, must be of course in large pieces, scarcely acted on by the teeth, and of difficult digestion. The sudden distention of the stomach, by the introduction of a large quantity of
meat

meat so nearly at the same time, must weaken its tone, by overstretching its fibres; and this has sometimes gone to such a length as to deprive the stomach of all that power of expelling its contents, which soon terminated in death.—To these dangers should be added, that of the meat sticking in the passage of the gullet, and remaining there without a possibility of removal, a thing which is not uncommon amidst such excesses. Even the proper temperature of food is worthy attention. Rustick folly has produced wagers and premiums on the eating food nearly boiling hot. It is difficult to preserve any temper in the censure of such outrageous stupidity.

The quality of food is necessary to be considered, as well as its quantity. The stomachs of labouring men are undoubtedly strong, and able to digest coarse meat; but ill-judged oeconomy should not prompt farmers to set before their servants decayed or indigestible food. Putrid meat is not merely unwholesome in its remote consequences, but immediately dangerous to life, as has been often experienced, and should be avoided as carefully as we would any other poisonous substances.

I have before pointed out the bad consequences that are apt to result from the free use of some indigestible fruits, particularly plumbs and nuts. I think

think it would be a proper caution for farmers not to plant any of the former that are of the coarse and austere kind; for though they generally bear plentifully, their fruit is of little value, and likely on that account to fall to the share of such people.

Hazel plantations are more necessary, but still it would be of service to place them as far from farm-houses as might be convenient, that they might afford less temptation for the gathering of their fruit. It is proper to notice here the danger thoughtless people who spend much time in the fields are exposed to, from eating plants and berries with which they are unacquainted. Many plants, commonly met with, are well known to be extremely poisonous, such as the Henbane, Deadly-nightshade, Water-hemlock, some species of Dropwort, several kinds of Mushrooms, and many others.

It should be a strict injunction to all who spend their time in the fields, never to taste any plant, fruit, or berry, which they do not know to be safe, and indeed it would be more prudent to discourage altogether such useless curiosity. It is obvious that this caution is particularly necessary for children.

The danger of excess in liquids is greater than in solid food. Fermented liquors, taken in moderate quantity, are both proper and necessary for those
who

who perform laborious work; but this healthy proportion is apt, when opportunity offers, to be exceeded by people whose gratifications are few in number and of rare occurrence. As it is impracticable to prevent such excesses altogether, I would wish to suggest, that, if they must take place, malt liquor is found by experience to be much less injurious to the health and constitution than distilled spirits, however diluted with water.

I have been informed, that a principle of economy has induced many farmers to treat their servants, and those with whom they are connected; with spirits and water, instead of malt liquor; but such a practice is by all means to be discouraged, as spirits are much more inflammatory than malt drinks, and produce more readily obstructions and inflammatory disorders, especially of the liver and mesentery. The temporary delirium of intoxication that they produce, is said to be much more violent and outrageous, and of course more dangerous, than what follows from taking too large a quantity of malt liquor. The destructive effects of spirituous liquors were so observable some years ago, as to produce the most serious apprehensions in a national view, and to attract the notice of the legislature. The baptisms of London alone are said to have been reduced from twenty thousand annually to fourteen thousand, which was with reason

reason ascribed to the use of this pernicious beverage:—This fact is equivalent to a thousand arguments!—On this subject I would wish to say a few words on the debauchery that usually attends county elections, especially such as are contested.

Much has been said of late years on the subject of instructing Members of Parliament. No condition would be more justifiable than to demand of all the candidates a promise that they would not, by encouraging debauchery, ruin the health, destroy the industry, and corrupt the morals, of those people for whose interest they profess such an anxious concern, and to whose service they are so profoundly devoted. I believe it will not be thought going too far to affirm, that very few indeed have it in their power to repair, by any political conduct of their own, the mischief done by a contested election. No combination among the electors could be more truly patriotic, than one which tended to refuse support to every candidate that attempted to promote his interest by such means.

In the former part of this essay, I have mentioned some of the ill effects that follow violent exertions of labour or exercise, which I trust are sufficient to shew the imprudence of such strained efforts. I shall only add here, that such trials should not be encouraged

encouraged by premiums or other means, either by private persons or publick societies. It would be far preferable to encourage constant and persevering industry and good execution of work, than excessive labour and fatiguing exertions of strength.

I shall conclude this chapter with some pieces of general advice.

Those who employ servants in agriculture should encourage them to be careful of their health, and to make it a point of consideration. A proper prudence in this respect is perfectly consistent with industry, and is indeed the most necessary circumstance towards the execution of a great quantity of work.

It is common with agricultural societies to give premiums for the greatest number of children; but this should always be conjoined with another condition, that the children should be healthy, and this last circumstance should preponderate against the other.

The situation of farm-houses is a matter of great consequence, as it regards health. The greatest care should be taken to place them in dry situations, with a descent from them every way, and upon a gravelly spot, or at least such a one as is free from springs

springs that rise to, or near to, the surface of the earth. Care also should be taken to place the repositories for dung and other manure at some distance from the house, and this caution should be also extended to the hog-styes and poultry-yards. The necessary attention to the feeding these animals does not allow the distance to be considerable, but still does not require their being so near as we generally see them placed. It is needless to expatiate on such a subject, or to attempt to prove that air impregnated with such filthy exhalations must be injurious to health.

Even good plans for farm-houses of different sizes, according to the number of inhabitants, would contribute in no small degree to general welfare. The bed-chambers in farm-houses are in general too low and confined, and the whole building too small; this occasions too many people to be crowded together, a circumstance always very unfavourable to health, and the most common source of contagious disorders. Good water is also a circumstance of great moment. If this can be had from any spring that rises to the surface of the earth, it is commonly preferable to such as is drawn from a considerable depth; but such a choice is not always in our power. If pond-water be used through necessity, it should be previously put into cisterns or reservoirs, covered at the top, and there suffered

suffered to settle. Care should be had that the water be taken from a large pond, with a stony or gravelly bottom, and not subject to become putrid. Those who drink water of this kind should beware of swallowing the eggs or spawn of animals, leeches, particularly, which sometimes have produced, it is said, disagreeable symptoms.

Cleanliness of the person is of greater importance to health than is generally imagined, and ought to be particularly encouraged among the lower ranks of people, especially those employed in this way. Nothing seems more likely to contribute to this salutary purpose than a due observation of Sunday; this precept is not only conducive to religion, morals, and civilization, but also to health.

It is well observed by Mr. ADDISON, that Sunday clears away the rust of the whole week:—an expression which may be understood to extend to cleanliness as well as other considerations, and indeed appears to have been so intended by the amiable author in the passage referred to.

On the CURE of the DISEASES incident to an
AGRICULTURAL LIFE.

I now come to the last part of this essay, which is to speak—*of the Cure of the Diseases to which Agricultural Persons are subject from their way of Life:* and here I must remind the reader, that the present treatise is not meant to be a discussion of the subject at large in a medical way, but only to contain some plain hints and directions of the practical kind, which I believe to be justified by reason and experience.

Persons employed in daily labour of a healthy kind, and living on coarse food, naturally become robust and athletic, of a firm fibre and dense blood. Hence inflammatory complaints are in such habits more common than those of the putrid kind; and such as are attended with low spirits and other hypochondriacal symptoms, are rarely met with. Evacuations may of course be used with more safety among such people, than among the effeminate inhabitants of populous towns.

Bleeding in the fevers that occur among country people, is for the most part necessary, especially in such as are attended with local inflammation, as pleurisy, peripneumony, or inflammation of any of the viscera. In such cases, twelve, fourteen, sixteen,

teen, or even twenty ounces of blood, may, and often ought, to be drawn at one time. The quantity, however, cannot be determined by any general rule, but must be regulated by the age, strength, sex, and constitution of the patient, but principally by the urgency of the symptoms. If the internal pain be very acute, the skin hot and dry, and the pulse exceed 110 beats in a minute, a large bleeding is generally necessary, especially if any other symptom of a fatiguing or dangerous kind, as a violent cough, or shortness of breath, be present.

It is proper here to remark, that as soon as the nature of the complaint is so far ascertained as to prove bleeding to be indicated, it is of consequence that such operation be performed as soon as possible, and that a sufficient quantity be drawn at one time. One plentiful bleeding will sometimes subdue a disease at its first appearance, when, if half the quantity only had been taken, it would have required perhaps to be repeated several times.

It often, however, and indeed generally happens, in fevers attended with local inflammation, that one bleeding, however judiciously managed in respect of quantity, is not sufficient. In such cases we must be governed nearly altogether by the urgency of the symptoms, and when these indicate a farther evacuation to be necessary, we must pro-

ceed, not indeed without regard to other circumstances, but nevertheless as considering them as subservient only to the principal object. An attention to this circumstance is especially proper when the parts that are the seat of the complaint are immediately necessary to life, as in inflammations of the brain, lungs, bowels, or any of the viscera; in such cases, there is no time to be lost, and what many would think bold practice, is indeed the only means of escape.

It is proper indeed to be careful, that the complaint originally be of such a nature as to require bleeding at all; and in this, it must be confessed, even the most acute persons of the profession have been deceived.

The intermittent fever sometimes comes on with such violent symptoms as to resemble very strongly an inflammatory fever. But a little time generally resolves the difficulty, and the successive and clear-marked stages of *cold*, *heat*, and *sweat*, are for the most part sufficient to determine the nature of the disorder, even before any intermission takes place, and any necessity of beginning to treat it as a fever of a different kind. Even if it should be mistaken, and some blood drawn, this evacuation has been often found serviceable in the beginning of intermittents, when the symptoms are violent, and is recommended

recommended on such occasions by the most judicious practitioners. A careful examination of circumstances will, for the most part, enable us to distinguish this disorder at its first appearance.

Moist weather, and a season of the year about either the vernal or autumnal equinoxes, the latter especially, and the frequency of the disorder in the neighbourhood, afford strong presumptions in favour of a fever being of the intermittent kind:—to which we may add, such observations as may be drawn from the nature of the soil and situation, and the business or work in which those attacked with the complaint had been employed, previous to its first coming on.

It is an opinion generally received, that if bleeding be omitted at the beginning of fevers, it is improper in their advanced state, and this is in some measure true. Fevers that commenced with inflammatory symptoms often become putrid as they proceed, and bleeding is certainly improper in such circumstances. But I would observe, that this caution holds more strongly with regard to the enfeebled inhabitants of towns, than for robust countrymen. I apprehend that bleeding, though certainly more likely to be of service if tried at the beginning of the disease, is nevertheless proper at every period when inflammatory symptoms are present.

present. This holds more strongly in cases of fever attended with local inflammation, as in pleurisy, inflammations of the viscera, &c. in which the propriety of bleeding at every stage, provided the symptoms are urgent, is universally acknowledged. It sometimes happens in robust people, that the common inflammatory fever preserves its original appearance nearly as long as life continues, and its change of type is not to be regarded so much as an indication that points out the propriety of a different method of treatment, as a sign that all our attempts are likely to be in vain.

Topical bleeding is often of great service in many disorders as well as general bleeding, especially in the removal of some troublesome and distressing symptoms. The head-ache is frequently an attendant on fevers, and often continues when the heat, quickness of pulse, thirst, and other symptoms, are much abated; and may be often thus relieved:—One of the easiest and safest methods of partial or topical bleeding is by the application of leeches. If 3, 4, 5, or 6 of these, be applied to the temples, in the cases mentioned above, they will often procure almost immediate ease, and are perfectly safe in their application, as the quantity of blood each of them draws is very small. Leeches may often be applied with great success in many inflammatory complaints that shew themselves externally,

ternally, as rheumatic swellings, particularly those of the face and cheeks, inflammations of the eyes, inner parts of the ear, &c. In every instance they should be applied as near as possible to the part affected. Bleeding, however, though a powerful remedy, requires some judgment and caution in the application of it.

The fevers that appear among country people, though often inflammatory, are not always so. Putrid fevers, though scarcely natural (if such an expression may be admitted) to a country life, are nevertheless capable of being communicated by contagion, and in such cases bleeding is generally hurtful. In some instances the putrid and inflammatory symptoms are so combined, as to make it doubtful to which class of symptoms we ought principally to attend, and in such cases some experienced person should be consulted; but in general the sudden debility of body, and dejection of mind, that usually come on at the access of the fever, the red watery eye, and the tendency to perspiration or other evacuations, sufficiently distinguish this complaint from those of the inflammatory kind. The nervous fever seems to be only an inferior degree of the putrid or malignant. It is principally distinguished by the weakness and dejection of mind that attend it.

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The ulcerated fore-throat is another complaint that may be found in every situation, as it is capable of being propagated by contagion. The difference of this from the inflammatory fore-throat is now well understood and generally known; but there is another complaint that resembles it very much, which requires a very different mode of treatment, of which I shall speak hereafter. In both, however, bleeding is improper.

No case requires the use of the lancet more than the common cold, if attended with cough and pain of the breast or side. These symptoms, if neglected, frequently terminate in consumptions, which might easily have been prevented by some evacuation of this kind, joined to common care, whilst the complaint was recent.

An absurd custom prevails among the common people, of letting blood about the spring and fall of the year, whether they have any complaint that requires such evacuation or no; this practice, however, so far from tending to prevent disorders, contributes greatly to produce them. It causes an habitual plethora, impoverishes the blood and juices, and when done at the latter end of the year, is apt to dispose the body to intermittent fevers, and, if often repeated, to dropfical complaints. Many other bad effects of this absurd practice might be enumerated,

enumerated; but they are, I think, unnecessary to mention.

Purging is a mode of evacuation, whose consequences in inflammatory complaints are often important, though less so than bleeding, and I think less hazardous, if misapplied. Almost every inflammatory complaint requires some operation of this kind; it is however in general proper to be preceded by bleeding, which is thought to make it more safe and effectual; but this rule admits of many exceptions, and is not necessary to be adhered to, except the tendency to inflammation prevail pretty strongly.

It was formerly thought, that purgative medicines differ considerably in the nature of the discharge they produced; some being calculated to discharge water, others bile, others phlegm, &c.; but modern practice does not admit of much difference in this respect. All purgatives evacuate the bowels, and, if powerful and stimulating, produce a watery discharge by the absorption they occasion from the lymphatic system. Notwithstanding this similarity in the effects of purgative remedies, they differ considerably with respect to the circumstances that attend their operation. Some purgatives are observed to stimulate the body, and accelerate the pulse during their operation, more than

than others; and this is an important circumstance to direct our choice of them, according to the purposes for which they are intended. Those that operate with least irritation to the system, especially to the circulation, are preferable in acute complaints; and nothing in such cases is better than a simple solution of the bitter purging salt in water. It is seldom rejected by the stomach, however unpleasant it may be to the taste, and its operation is effectual, and takes place quickly;—a circumstance of great importance in such cases. From one to two ounces may be safely taken, dissolved in a pint of warm water, in all inflammatory complaints where purging is proper. If it should be necessary to repeat it in the advanced stages, when the feverish heat begins to subside, it may be taken dissolved in the same quantity of infusion of flowers of chamomile, which will conduce to support the tone of the stomach without obstructing the evacuation.

The same remedy is proper in such fevers as are attended with local inflammation. If given early in such complaints, it will generally procure a passage, being quick and effectual in its operation, and found by experience to be less liable to be thrown up than things much more pleasing to the taste. The use of this medicine is not only advisable in continued fevers, but also in the beginning of intermittents, when the patient is strong enough to bear

bear purging. But of this, I shall say more when I come to speak of the use of the Peruvian Bark in that disorder.

In the advanced state of all fevers, when the inflammatory disposition begins to abate, and a tendency to putrefaction to prevail, the saline purgatives in general are less proper than such as are of a more warm and stimulating nature. Rhubarb in such cases is more proper, as being warm and aromatic, at the same time that it is purgative. If it be required to be made warmer, one half or one third part of nutmeg, or any other spice, may be added; from 20 grains to 60 may be given for a dose, but this must vary according to circumstances.

It is a perplexing circumstance attending the giving purgative medicines internally, that we cannot determine the degree of their operation by the proportion or quantity that is taken. It generally happens, that one half or two thirds of the usual dose will have little or no effect; whereas, had the full quantity been taken, it would have produced a larger discharge than might be desired. In cases, therefore, where some evacuation of the bowels is necessary, and at the same time we might be apprehensive of any unpleasant effects from a large discharge, it is proper to employ clysters, which have an additional advantage, that their effect takes place

place in a much shorter time than could be produced by any purgative medicine internally taken. When clysters are administered with this intent, there is no great necessity to be very particular in their composition. A pint of warm gruel or broth, with two spoonfuls of salad oil, or melted butter, a table-spoonful of common salt, and the same quantity of brown sugar, forms as efficacious and proper a clyster as the most laboured composition.

It is proper, while upon this subject, to caution against the practice of giving purgative medicines internally, especially such as are of the heating or stimulating kind, commonly called warm purgatives, to people who complain of pain in their stomach or bowels; particularly if this pain be attended with heat, thirst, or other symptoms of fever. It is much the safer practice to inject a clyster of the kind before mentioned, and to repeat it if necessary, and to use external fomentations, than to enter precipitately on the use of purgative medicines, which, if they do not take effect, often aggravate the mischief, by producing or increasing a disposition to vomit, and sometimes totally inverting the peristaltic motion of the intestines. If sufficient stools can be procured by clysters, the danger is generally over; but if that means of relief do not succeed, it is safer to apply to some of the profession, who may best determine what method may be pursued.

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It is of the utmost consequence to mention, that when any complaint of violent pain in the stomach or bowels is made, especially if such pain be not accompanied by stools, we should enquire first about the place in which it is chiefly felt, if that can be pointed out; and next, if it came on rather suddenly, or soon after performing some laborious work, especially the lifting any great weight, or indeed any considerable exertion of strength. If this be found to be the case, we should carefully examine the belly, especially that part nearest to the seat of the pain; and if any swelling, or lump, however small, be found, even of the size of a hazel-nut, we may be almost certain, that the cause of the complaint originates from thence, and that if it be *immediately* attended to, it may *probably* be relieved, at least the present danger obviated; but that if it be neglected, the patient will almost infallibly die. The only remedy on such an occasion is, to restore the portion of the intestine, which is thus protruded and compressed between the muscles of the abdomen, again into the cavity of the belly; and if this be done *soon* after the accident, it produces no farther injury. But this must be understood of such cases only as have a quick attention paid to them, since if any delay be made, the danger increases very rapidly: even a few hours may determine the interval between safety and death. If the patient be in the vigour of age and strength, the consequences of neglect

neglect are more to be apprehended, than if he were advanced in years, as the probability of inflammation and stricture upon the intestine is greater.

The apparent facility and celerity with which this operation is often performed, and its great simplicity, may induce some people to attempt the performance of it, who have had no instruction or experience relative thereto; but it is proper to caution against such attempts, as much nicety of touch, and address of management, are often requisite; and if the part be rudely or injudiciously handled, the hazard of the disorder is much increased. The parts where such an accident is most liable to happen, are the navel and the groin, but this rule is by no means universal.

It is farther necessary to remark, that women, who in country business are often employed in lifting considerable weights, as of pails of milk, buckets of water, and such like, are more liable to ruptures than men; and on that account it is highly necessary, that whoever attends women labouring under any acute pains of the abdomen, should make a strict enquiry into the circumstances under which such pains originated, and particularly if there be any tumour in the groin, belly, or pudenda; and if there be such, to be informed of what nature it is, before he goes any farther, or loses any more of that time, which in such cases is so very precious.

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To return now from this rather long, but I hope not useless, digression.

Emeticks are another class of medicines of the evaculatory kind, that are often of the greatest importance, and whose use requires the particular attention of those who give advice to sick persons. It is not meant here to give a general account of the causes or circumstances in which emeticks may be administered with propriety, but only to give a few hints relative to the cases that are most likely to occur in such situations, in which those remedies may be useful.

First, then, emeticks are indicated in cases where from imprudence or negligence any thing has been swallowed, that we have reason to believe would be specifically injurious by its continuance in the stomach. Thus if any poisonous plant, root, or berry, as of Henbane, Dropwort, Nightshade, or such like, has been incautiously or ignorantly taken, our principal security depends on such poisonous substance being evacuated as soon as possible, and this can only be done with safety by means of emeticks. A scruple or half a drachm of powder of ipecacuanha, together with a grain of emetick tartar, may be safely given on such occasions to an adult person, and worked off with a strong infusion of chamomile flowers, or of root of horse-radish. This accident

cident is most likely to happen to children, with whom the same remedy may be tried; some diminution in the dose may be proper; but in such dangerous cases it is better to give a full dose, and the rather as by the quicker and more effectual operation of a larger quantity, the emetick substance itself is sooner and more completely discharged, and in general with greater ease to the patient, than if a small dose had been employed. The same remedy may be taken when the stomach is overloaded by excess of food, or by any victuals that disagree.

With the same intention emeticks may be given when by some violent debauch the stomach is deluged with strong liquors, and the insensibility may be so great, that it may be apprehended life is endangered. A quick and effectual evacuation of the stomach is sometimes of great consequence in such cases, and serves to rescue such unwary persons from impending destruction. When the stupor prevails so far as to prevent swallowing, a few grains of emetick tartar conveyed to the back part of the tongue will find its way into the stomach, and in most cases, where that organ retains any sensibility, produce vomiting. A few grains (three or four for instance) of blue vitriol may be used for the same purpose, and in desperate cases is preferable, as possessing a stronger emetick quality.

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It must however be observed, that it is not always either advisable or safe to give vomits to remove substances that have got into the stomach, that we apprehend may do mischief by means of their mechanical stimulus, as pieces of bone, pins, or other sharp or pointed bodies, that may have been swallowed. The contraction of the stomach that necessarily attends vomiting may, if the substances be not discharged, aggravate their bad effects, and cause mischief by pressing on such substances; which might not have happened, had they been left undisturbed.

But the use of emeticks is not confined merely to cases where we desire to empty the stomach, on account of any foulness supposed to be lodged there. They are often of the greatest service when given at the coming on of feverish complaints, whether these be intermittent or continual fevers. In both of these, it is usual for some degree of nausea, or sickness of the stomach, to accompany the cold fit, which it is proper to encourage, should it not come to an actual vomiting. An infusion of chamomile is often sufficient for this purpose; but if that fail to excite a complete discharge, a scruple of ipecacuanha in powder will assist the discharge sufficiently, effectually, and safely.

Emeticks are often of service in the common catarrhus cœli, when the glands of the throat and

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fauces are deluged with mucous phlegm, which is often very difficult to be spit up. In these cases, an emetick often acts in the most powerful manner in unloading the glands, and promoting general expectoration.

About ten years ago, a disease appeared in the midland counties, much resembling the ulcerated fore-throat, but differing from it in reality, and requiring very different remedies. This was called the fore-throat, attended with scarlet fever, and raged principally in the summer and autumn, in hot and dry weather, and attacked principally robust and vigorous people. Vomiting in this disorder proved a very effectual remedy, and required to be frequently repeated, during the heat of the disease, even, in bad cases, as far as twice in twenty-four hours. Should the same complaint again become epidemic, the early administration of emeticks will probably be of the utmost consequence, and ought to be carefully attended to. It was found necessary to use such as were of a powerful kind, otherwise little benefit was received.

The above are far from being the only cases wherein emeticks are useful, but such only as occur to me wherein they may be administered without hazard of being injurious, and have a probability of being of service. It will be proper here to offer

*Some Cautions relative to the Dose and Management
of Emeticks.*

First, then, I apprehend, that it is a mistaken notion that gentle emeticks, as they are called, are milder in their operation than the more powerful. A small quantity of ipecacuanha often causes a most troublesome nausea and retching, for a long time together, owing to its not possessing a stimulus sufficiently strong to cause a complete evacuation of the stomach. A strong emetick on the other hand, by clearing the stomach in a few efforts, is itself discharged, and of course gives no farther trouble. A scruple of ipecacuanha, in general, operates with much less pain and fatigue than five or ten grains, and the operation is sooner over. It is proper to add a portion of some antimonial preparation to the ipecacuanha: a grain or two of emetick tartar, or a drachm or two drachms of antimonial wine, serve the purpose equally well. They are of service in clearing the stomach more compleatly than ipecacuanha would do if given alone; and on the other hand the ipecacuanha causes the antimonial medicines to operate with greater certainty as emeticks, which would otherwise often go off by stool.

Another caution I would recommend is, to wait patiently for the operation of the emetick, and not to attempt, by any mechanical means, as tickling

the throat with a feather, or with the finger, to cause retching before the sickness is sufficiently strong to excite vomiting freely. It is better even to repress the first motions to vomit, and wait till they become sufficiently strong to be effectual.

It is somewhat remarkable, that the addition of antimony to ipecacuanha, though it certainly causes a more full evacuation of the stomach, seems to retard the operation in some measure. Ipecacuanha given alone generally causes sickness in the space of fifteen or twenty minutes; whereas, if antimony be added, that effect seldom takes place under half an hour or forty minutes, and often longer.

Another caution is, for those who take emeticks not to load their stomach with large quantities of warm insipid liquor, under the notion of working off the vomit; warm chamomile or horse-radish tea, or a mixture of both, is preferable to gruel or warm water, as not relaxing the stomach so much as those weak tasteless liquors.

Lastly, it should be considered by all, that the habit of taking emeticks is of itself very weakening to the stomach and powers of digestion: occasionally used, they are in most cases a safe and powerful remedy, but frequent repetition causes them to be less beneficial, and in time hurtful.

Medicines that cause sweat, called in medicine *Diaphoreticks*, are next to be considered. The use of these, though not so general as was formerly thought, still forms an important indication. The common catarrhus cold is more effectually relieved by promoting this evacuation than by any other means, and the same was observed of the influenza, when that complaint was epidemick some years ago. Rheumatick complaints are also benefited by it, and many other slight febrile complaints. Nothing, however, has been more mistaken, than the most effectual means of producing this discharge. External heat is generally thought necessary; but it has been discovered of late years, that the body may easily be made too hot to sweat, and that there is often no method more powerful than by diminishing the heat of the body when too great, and that it is often necessary, in order to promote perspiration, to take off part of the bed clothes, diminish the heat of the room by removing the fire and opening the windows, and to give cool liquors to the patient,

Nothing succeeds better with this view in the common catarrhus cold, which requires some discharge by perspiration, as much as any complaint whatever, than to bathe the feet at night for a quarter of an hour in water made about blood warm, and to take a moderate dose of spirits of

hartshorn in a pint of warm whey, gruel, or infusion of some garden herbs, as balm, mint, &c. This is perhaps the safest method of any; as whatever the nature of the disease may turn out afterwards, no injury can arise from what has been done.

In rheumatick cases, it may be necessary to employ diaphoreticks of a more powerful kind, and for this purpose *Dover's Powder* is frequently given, and often with good effect. It is given from five to fifteen grains, and may be continued every night or every other night for ten days or a fortnight, if the discharge by the skin be not too great, and the painful symptoms continue.

It is proper here to speak a few words on the subject of that popular remedy, *Dr. James's Fever Powder*. This is well known to be an antimonial composition, less stimulating to the stomach and bowels than emetick tartar, and on that account preferable where any permanent effect is desired. It often acts as an emetick or a purgative, as well as a diaphoretick; but the last effect is, I think, more common. In fevers of the inflammatory kind, and such as are commonly found in country places, it is, if given with any tolerable caution, an excellent remedy, taking off the feverish spasm, unloading the stomach and bowels, and as it were giving an opportunity for the exertions of nature.

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It is best given at the beginning of feverish complaints, before they alter their tendency from an inflammatory to one that is putrid. If the inflammatory symptoms are violent, it is safer to use some previous evacuations by bleeding, and a clyster; after which, from five to twenty grains may be given, according to the strength of the patient and urgency of the symptoms. It is given with most advantage in cases wherein the patient is able to bear considerable discharge by stool; but it is remarkable that these seemingly distressing operations are soon recovered, and the patient appears in many cases the stronger on their account. The sickness also caused by this medicine, however uneasy to bear whilst it lasts, generally leaves the stomach in a state fit for the receiving of nourishment; an inclination for which is, in many instances, one of the first marks of benefit received from the use of this remedy.

It sometimes happens, that this medicine, though given to its full quantity, produces no sensible effect of any kind. Whether this be owing to any defect in the preparation, or to any insensibility in the nerves of the stomach at such times, I cannot determine. It is however in such circumstances necessary to forward its effects, since if it remain inactive in respect of producing some evacuation or other, it seldom is of any service. If the stomach
appears

appears to be loaded, a scruple of ipecacuanha may be given, joined to a grain of emetick tartar, which generally takes effect, and sometimes seems to excite the action of the powder. If we wish to determine its action downward, an ounce or six drachms of the bitter purging salt may be taken, and a clyster of broth and common salt thrown up.

As to the mode of exhibiting this medicine, I have before observed, that it may be taken from five to twenty grains at a dose, and is most conveniently given in something of a viscid consistence; as pulp of roasted apples, currant-jelly, or the like. If put into any thin fluid, as tea, it is apt to sink to the bottom, being of considerable specifick gravity, and indissoluble in any watery fluid. It has been a great injury to medicine, that this preparation should have been kept so long as an empirical secret. It has been by that means extolled in complaints in which it had no salutary efficacy, and was even liable to prove injurious. It is impossible that any medicine can be suited to every kind of fever. Some require immediate and large evacuations; in others, such a treatment tends infallibly to destroy the patient; and there is no doubt, that the indiscriminate recommendation of this remedy, which generally acts as a powerful evacuant, must have been the cause of many lives being sacrificed to pecuniary interest. Such a remedy, however suited

to

to disorders where a quick and powerful evacuation is required, is utterly improper in cases where the powers of life are much reduced, and where the utmost attention to support the strength of the patient is necessary. This is always the indication in fevers of the low, nervous, and contagious kind, and is frequently the case in the advanced state of fevers in general, whatever might be their tendency at their first appearance. Even in the rheumatism, which is of an inflammatory nature, though often chronical in point of its duration, this medicine, though often serviceable at the beginning, must not be continued very long, as it is found, like the other antimonial preparations, to injure by long use the tone of the stomach and powers of digestion.

The high, and as it might justly be called extravagant price of this remedy, which bore scarcely any assignable proportion to its intrinsic value, has caused its use to be less general among the poor than humanity would desire. That objection is now, however, superseded; the powder being now sold at Apothecaries-hall, for less than one twentieth part of its former price; and this powder is found, on the most impartial examination, to be fully equal in every respect to that sold under the denomination of *James's Powder*.

Diuretick Medicines form a class of remedies, whose effects would be very desirable, were they
not

not so precarious. No diureticks that we know are much to be depended upon for certainty of operation, especially in such cases as we most desire to have it. Those that are safest, and least offensive to the stomach, are the sweet spirit of nitre, and the sweet spirit of vitriol, which may be taken in the dose of a tea-spoonful in a glass of water, or other cold liquor, once or twice a day, and continue for two or three weeks. Some of the vegetable infusions, as of horse-radish and mustard-seed, will sometimes produce the same effect, and may be continued, if successful, a long time without injury to the constitution or health in other respects. The infusion may be made by pouring hot water on the mustard-seed bruised, and horse-radish fresh scraped, and letting them stand together a few minutes. An ounce of each of the ingredients is enough for a quart of water; and about a quarter of a pint of this infusion may be taken twice a day.

The above infusion, or one similar to it, is often used with success in the swelling of the belly and legs, which often succeeds obstinate intermittent fevers, and is generally attended with thick turbid urine, which is secreted in small quantity. This preparation, though apparently simple, is as likely to succeed as many others that are more compounded, and may be safely tried in all cases where the urinary secretion is defective.

It

It is proper, however, to caution against the giving diuretick medicines of any kind, when any pain, or heat of urine, accompanies the diminution of its quantity. In such cases, opiate and emollient remedies are proper, joined with such as abate inflammation.

Having thus spoken of medicines that produce evacuation, I shall now speak of those which stimulate, and call the powers of life into action.

Stimulant Medicines may be considered in practice as of two kinds; one of which tends to give a permanent support to the vital powers, the other tends to excite their action in a more temporary manner. Of the former of these, wine, when good, is perhaps the most generally useful in cases of emergency. It is now found that, in low and putrid fevers, wine may be given with great advantage in larger quantity than was formerly thought practicable with safety, even to two or three bottles in 24 hours. Nay, larger quantities have been administered, but it has been found that even a proper remedy may be over-dosed, and that such quantities as I have above specified should be cautiously ventured on, and not without attentively observing the effects of each dose that is taken. The best way of giving it is, I think, in small quantities, and frequently, and as fresh from the cellar as possible, perfectly cool, and without any admixture.

In

In fevers, where the skin is moist, with a scalding heat to the touch, the pulse quick and low, the eyes moist or watery, the stools loose and foetid, thirst great, tongue foul, respiration difficult, and spirits depressed, there the use of wine is adviseable, and is indeed the principal remedy on which we must depend. The indication for wine is stronger, if any spots of a blue or purple cast appear on the body, or if a low muttering delirium come on, attended with faintness. Life then depends on active and quick exertions. Most fevers that are contagious are of this kind, particularly that called the *Jail Fever*; and the same method of treatment is necessary in some measure in most acute fevers that last beyond eight or ten days, without some evident signs of abatement. The marks whereby we may judge wine when administered to be of service are, a cessation or diminution of the pain in the head or delirium, diminution of the heat, and clammy sweat, and by the patient being in better spirits, and entertaining hopes of his recovery. It often happens, that fevers of this kind, when they begin to abate, assume somewhat of an inflammatory appearance, the skin becoming hot and dry, and the pulse full and quick. These symptoms are not unfavourable, and generally abate of their own accord. They indicate, however, that wine should be more sparingly given, if not totally laid aside, during their continuance.

If

If wine cannot be had, or not in perfection, or is not relished by the palate, good malt-liquor may be substituted in its room; and I have seen porter tried with the best effect in a case of this kind. The patient drank about three quarts a day for several days, and it seemed to agree better than wine or any other medicine, and was, after the second day, the only remedy administered. I have some reason to think, ale, or strong beer, might be used with similar effect; but have never had any personal experience of their efficacy. The Peruvian Bark is used with the same intention in the same disorder, and with good effect. But it is now thought that wine is full as powerful, and much more easily administered, as being more grateful to the palate:—a thing of great importance where the frequent repetition of a medicine is necessary. The use of the bark is, therefore, in a good measure superseded in putrid fevers, except where the throat is ulcerated; in which complaint it has been found by experience to be particularly useful.

The principal use of the *Peruvian Bark* is in the intermittent fever, the returns of which it is well known to be very efficacious in preventing. It is best given in substance, and most conveniently in form of an electuary made up with any syrup, and with the addition of some spice, as a little nutmeg, or cinnamon, in powder, to each dose. If the patient

tient be strong, and the body costive, a small quantity (a drachm for instance) of Glauber's salts, or the bitter purging salt, may be added to the three or four first doses of the bark, which generally opens the body and promotes urine; but if the disorder be advanced, or the patient weak or in years, such addition is less proper. If the bark purges, such tendency must be moderated, which a few drops (two or three for instance) of liquid laudanum in each dose generally does very effectually; and when that disposition is conquered, the laudanum must be omitted. The bark must be given in considerable quantity when employed to cure an intermittent. It is to little purpose to give to a grown-up person less than an ounce in 24 hours, and often double that quantity. It may be given in doses of two scruples or a drachm each, or about the bulk of a large nutmeg of the electuary every two hours on the day of intermission, and repeated every day for several days, if the fever does not return. After the intermission of three or four periods of the paroxysms, we may diminish the quantity, and give it only every four hours, taking care to give a dose a little before the time of day that the return of the complaint may be most probably expected. If the complaint does not return, the quantity may be in the space of a week or ten days still farther diminished, but it must not be left off entirely for the space of at least six weeks. If the

disorder

disorder has had several returns, if it be an autumnal season, and the weather rainy, if the fits return every day, or with an interval of two days, or if the patient be weak and emaciated, more caution and attention to the regular administration of the bark will be necessary.

It would be a desirable circumstance, if that kind of the Peruvian Bark, called the *Red Bark*, were to be had genuine; but at present there is reason to think, that it can scarcely be procured. In an obstinate case of an intermittent, that fell lately under my care, I had an opportunity of trying the effects of the *calamus aromaticus*, which given in combination with the Peruvian Bark, in the proportion of one part to two of the bark, stopt the progress of an intermittent that had resisted the bark taken alone. It is proper during a course of the bark to use a moderately liberal diet; but all excess, either in meat or drinks, is carefully to be avoided.

It is an old prejudice that subsists even to the present time, and among some of the medical profession, that intermittent fevers should not be too soon stopt, but suffered to go on through several paroxysms, before the bark should be given. It was thought that several disorders, particularly indurations of the liver, jaundice, mesenterick obstructions,

structions, and even rheumatick complaints, were produced in consequence of the bark being, as it was thought, prematurely given. But it now appears, that these complaints were the consequences of the disorder being suffered to continue too long, not of its being too soon stopt, and that the best method of preventing them is to interrupt the course of the fits as early as possible by a steady and resolute use of the proper remedy. This caution ought to be carefully attended to, and enforced by those who give advice to people in country places, as the prejudices in favour of the fits being suffered to continue, are often very strong.

Bitter Medicines, such as the flowers of chamomile, roots of gentian and centaury, are, in a good measure, similar in their effects to the Peruvian bark. They are, however, less effectual in the cure of intermittents and disorders of a putrid tendency, but better suited to a weak state of the stomach and organs of digestion. A strong infusion of any of the above-mentioned articles, with a little rind of the Seville orange, makes a bitter preparation as efficacious as any, and as pleasant as such a medicine can well be expected to be. A quarter of a pint of this taken twice a day for a week, fortnight, or three weeks, will often be of great service in disorders of the stomach unattended with fever. Infusions of this kind are also convenient vehicles for the

the administration of some other medicines. I have before mentioned, that saline purgatives may be given to advantage dissolved in an infusion of flowers of chamomile, and the same is true of such diuretick medicines as are of small bulk. The dulcified spirits of vitriol, and of nitre, may be given in this way, as may salt of tartar, when used as a diuretick.

There is likewise another class of stimulant remedies, which seem to act more generally on the system, though they sometimes excite particular secretions. The infusion of *mustard-seed* and *horseradish*, before recommended as a diuretick, is of this kind, and is often given with advantage in cases where the secretions in general are languid and slow. It may be taken with considerable advantage in rheumatick cases of long duration, where the pain is rather tedious and troublesome than acute, and attended with little or no fever. This medicine may be continued a considerable time, several months for instance, with less injury to the health and constitution in general, than might be expected from the long use of substances, whose sensible qualities are so powerful.

Stimulant applications of the external kind are next to be considered. The principal of these are *blisters*. The proper use of these in many instances

is attended with much nicety, and of course not a subject of my present treatise, which is only to give cautions, and to recommend the use of such remedies as may be applied with safety in such circumstances as are obvious to common understandings, independent of medical knowledge.—Nevertheless, there are, I think, many opportunities of their being employed with safety and probability of advantage, in circumstances that require no great medical knowledge to discover. Thus the use of blisters is adviseable in all internal pains, whether of the breast, side, or belly, attended with fever. In such cases, after bleeding, a blister, applied as near to the seat of the pain as possible, is a safe, and in general, if put on early after the commencement of the disease, an efficacious remedy; which may, if necessary, be repeated with perfect safety.

In cases, likewise, where cough and pain of the breast, though unattended with much fever, are symptoms, I have seen the best effect from small blisters repeatedly applied to the part where the pain was felt; and believe, if they were oftener tried when these symptoms are but recent, they might prevent many complaints of the lungs, which a short neglect renders fatal. I have found it the most easy, as well as effectual method of using this remedy, to apply it at going to bed, and, if it has risen, to remove it in the morning, and suffer it to heal

heal up, and if necessary to repeat it. This is less troublesome, and I think more effectual, than a perpetual blister.

Blisters are useful in pains of the head accompanying fever, or where any tendency to vertigo or delirium appears. If applied at the first appearance of these symptoms, which are always alarming, they are often of the greatest service, and safe in their application. They are most serviceable in such cases, if applied to the head when fresh shaved; but as that cannot always be done, especially with women, they must be put on between the shoulders. The same remedy is often used in some local inflammations, partly of the external kind. Thus in the inflammation of the eye, or inner part of the ear, blisters behind the ears frequently bring, after other evacuations have been used, great relief; which is likewise the case in violent pains in the cheek and face.

The strangury sometimes follows the application of a blister. This however, though troublesome, is seldom of any serious consideration, as it is mostly relieved by drinking plentifully of any mild warm diluting liquor, as milk and water, infusion of linseed, decoction of gum arabick in an infusion of the root of marsh-mallows, and such like. It is thought to conduce to the prevention of the stran-

guary, in those subject to it, to cover the blistering-plaister, as far as the flies extend, with a piece of gauze or muslin, and to spread the margin with the gum plaister, to secure its adhesion. By this management, the whole of the flies are taken off when the blister is dressed, which contributes to prevent the absorption of their acrimonious particles, which are thought to be taken into the circulation by being suffered to remain on the raw part. This precaution is of service, but not always quite effectual, and should not be used when a quick operation is required, as it abates the activity of the cantharides. It is customary with some to suffer the blistering-plaister to remain on the part twenty-four hours, but I think the time should be measured by the effect; and if a blister be raised in a third part of the time, as is often the case if the plaister be good, there is no occasion to trouble the patient with it for a longer time, which often gives unnecessary pain, and is much more likely to cause strangury, than if it were removed earlier.

The dressing of blisters is worthy attention. The best of any is a simple plaister of white wax and olive oil, melted together by a very gentle heat, and spread thin on a rather fine linen cloth. This keeps the part from the air, and does not stick to it, or cause any irritation. It is proper, previous to the application of a blister, to examine the surface

face of the plaister, that it may be sufficiently moist; since, if it be too dry, it will often produce no effect whatsoever. If it seem dry and unpliant, it should be gently warmed before the fire, and moistened, first with a little spirits of wine or brandy, and then with a little olive oil or fresh butter. We must be cautious in practice of applying blisters at all in cases of the putrid kind attended with fever, and where inflammations of the urinary passages are present.

Blisters, however, are not the only forms in which external stimulants may be employed with advantage. It sometimes happens, that it may be convenient to employ a remedy of quicker operation, as in violent pains of the head, delirium of fevers, apoplectick or paralytick seizures, and the like. In such distressing circumstances, it has been frequently found that stimulant applications to the lower extremities have been of great service, and proved a safe as well as an effectual remedy. Mustard seed bruised, or in fine powder, as the flour of mustard, is the best application. If this be mixed with an equal quantity of stale bread grated down, and made into a rather moist paste with vinegar, it will form a cataplasm of a proper consistence for the purpose here intended. If this be spread about a quarter of an inch thick on a piece of leather or linen cloth, and applied to the soles of the feet, or

in extremities to the whole of the feet, it almost immediately produces a violent burning sensation, and sometimes, though not always, an inflammation of the part; and now and then it raises a blister. The time it should be suffered to remain upon the part, must be measured principally by the effects it produces. It should not be removed immediately on the first abatement of the symptoms, nor need it be kept on till they have entirely ceased, as the sensation continues a considerable time after the cataplasm is removed.

In less arduous cases, as in fixed rheumatick pains of the hip, shoulder, or other parts, a plaister of brine has been applied with advantage, as being less painful than mustard, and less apt to blister than cantharides.—In the tooth-ache, and pains of the face, a convenient temporary application may be made by mixing a little black pepper ground into powder, with as much brandy or other spirits as will make it into a soft paste, which is to be spread on leather, and applied to the face. This produces a considerable sensation of heat, but without any great uneasiness, and seldom blisters, though it is often very efficacious in removing the pain of the part.

The foregoing application is very useful at the first coming on of a sore-throat, if laid upon the
outside

outside under the chin, and moistened again with spirits as it becomes dry. I never knew it blister, though it is frequently of great service. A mixture of spirits of hartshorn, with olive oil put upon flannel, and laid to the throat, is often advised; but I think it not so effectual as the former.

Medicines that ease pain, and procure rest, are the next to be considered; these are of several kinds, but Opium, by its greater efficacy, and more convenient exhibition, has superseded in a great measure all the others.

Did opiates produce no other effects than those above ascribed to them, it would be unnecessary to give any directions relative to their use, farther than to determine the proper dose; but the operation of this remedy is not so simple, but requires attention to regulate, and, in some instances, to counteract some of its effects. Opium may be safely and properly administered in most cases of violent pain, attended with none, or but little fever or inflammation. Thus it is the principal, and indeed almost the only remedy to be depended on, in those dreadful fits of pain which often attend the passage of a stone or gravel through the urinary passages. In such circumstances, opiates may be given with considerable freedom, in proportion to the excess of pain which is necessary to be alleviated,

viated, not only for the purpose of procuring ease to the patient, but also to allow the stone to pass, which seldom happens unless the pain and consequent spasm can be abated. Twenty, forty, or sixty drops, or any intermediate quantity of the tincture of opium, or of liquid laudanum, may be taken in twenty-four hours, according to the urgency of the symptoms. Larger doses have been given, but they are not without hazard, since as the pain is from the nature of the complaint liable, and indeed often does cease suddenly, from the passage of the irritating substance, the opium then is left to exert its full effect, unchecked by the stimulus of the pain, and aided by the disposition to sleep, which naturally comes on after the cessation of great torment. This is said, in some instances, to have produced fatal effects, the sleep proving mortal. On this account it will be prudent, after giving as large a dose of an opiate as can safely be done, to endeavour to allay the pain by other means, as fomentations, warm baths, &c. until the effect of the opiate be gone off a little, and a second dose may be given with safety. If the complaint be attended with vomiting, as those of the nephritic kind frequently are, a larger dose may be ventured on, if we find that what has been before given has been thrown up; but we must not conclude, that the effect of opiates is *quite* lost, even though they should be rejected from the stomach. Their stay is generally

rally sufficient for them to shew some signs of their specifick qualities. In cases where opiates are proper, and where there is any great nausea, or tendency to vomit, it is more convenient to exhibit this medicine in a solid form; and it is found by experience, that the smaller the bulk of the remedy, the greater is the probability of its being retained upon the stomach. A small pill, therefore, made of a grain of unstrained opium, without any other admixture, may be used in place of thirty drops of tincture of opium, to which it is fully equivalent; and this may, if necessary, be repeated once in twenty-four hours. If the vomiting be so violent as to suffer nothing, however small, to be retained upon the stomach, opium may be conveniently administered in a clyster. Forty drops, or a moderate tea-spoonful, which is generally regarded as equal to a drachm in measure, may be mixed with about half a pint, or less, of broth, gruel, or warm milk, and injected as a clyster, and retained, if possible, several hours.

It is always proper, that the body be kept, if possible, in a rather lax state during the use of opiates. If, therefore, any costiveness be present, it is advisable to inject a clyster of a moderately opening kind, previous to the giving of the opiate, which makes the operation of the latter safe, and less liable to affect the nervous system. If the use of
 opiates

opiates be necessary to be continued, it is proper to administer occasionally some internal medicines of a mildly purgative kind, as opiates generally render the body costive. The precautions just mentioned are equally applicable to such bilious disorders as are attended with great and often exquisite pain about the pit of the stomach without fever, and generally without any increase of pulse, and are produced by the gall-stone sticking in the ducts which convey the bile from the liver and the gall-bladder into the intestines. It should, however, be considered, that opium, in both the above-mentioned cases, is only a temporary relief; and though it often assists the passage of the obstructing body, yet is of no service to prevent the return of the disorder, and therefore should be taken only when great pain, and other urgent and distressing symptoms, render its use necessary.

The use of opium is in no instance more strongly manifested, than in the violent purging and vomiting that often comes on towards the latter part of the summer, or during the autumn, and is called the Cholera Morbus. It may not be proper to give opiates immediately on the access of the disorder, but after we may reasonably suppose the stomach and bowels to be cleared of their proper and natural contents, and little but bile, water, or mucus passes, it is time to administer opiates, especially if

if the retching to vomit, distention of the stomach, and griping pains, be violent. In such cases there is no time to be lost, and opiates are often the only resource. They may be given either in a liquid or solid form. The liquid opiate takes effect sooner, but is more liable to be thrown up, on which account we should endeavour to make it as acceptable to the stomach as possible. About a spoonful of warm simple mint-water, or of peppermint, is as likely to make it stay on the stomach as any thing I know, and the smaller the quantity of fluid swallowed with it, provided it be sufficient to disguise the taste, the more proper.

Opium is likewise proper in the simple diarrhoea or purging, that often comes on towards the close of summer. This, though sometimes salutary when moderate, often continues so long as to exhaust the strength, and weaken the tone of the stomach and bowels. In such cases it is often necessary to combine the opiate with some cordial astringent, among which I think cinnamon the best. If an ounce of cinnamon in powder be made into an electuary with any syrup, and the bulk of a small nutmeg taken three times a day, with four, five, or six drops of tincture of opium added to each dose, it forms a powerful and safe remedy in autumnal fluxes.

Opiates, judiciously administered, might often prevent many of the bad consequences that follow
violent

violent colicks, the iliack passion, and inflammation of the bowels. If a sufficient dose of tincture of opium, twenty or thirty drops for example, or what might perhaps be more proper, a grain of unstrained opium in a pill, were to be given as soon as the pain becomes violent, and before any vomiting has come on, it might allay the pain, and make way for the operation of clysters; and would be preferable, in my opinion, to the exhibition of strong purgatives taken by the mouth, which, if they fail of producing an evacuation downwards, as they often do, cause vomiting, and aggravate all the other bad symptoms. If however the pain be violent, and accompanied with heat or thirst, it will be necessary to let blood, which is perfectly compatible with the operation of opium. This medicine is not only useful on account of its own specifick qualities, but also as a corrector of those of other medicines.

It is not uncommon for the Peruvian bark to act as a purgative, which, in some of the most arduous circumstances in which it is given, as in intermittents, and fevers of a putrid tendency, is apt to disappoint its good effects. In such cases, a few drops of tincture of opium, added to each dose, generally prevents the bark proving purgative, and of course suffers it to continue in the body long enough to be serviceable. This need not in general be continued long, as after a few doses the bark will

will usually lose its purgative quality, and may be taken alone.

I shall conclude this head with a caution relative to the use of such remedies; which is, that the taking of them is very apt to insinuate itself, and to become habitual, especially in those who are occasionally subject to painful disorders. If often used, they become almost necessary, as sleep cannot be procured without them. Those, therefore, who are obliged to take opiates occasionally, should make it a point of consequence not to use them except when they are obviously necessary, and to leave them off as soon as that necessity no longer exists. It may be troublesome at first, but sleep will return in time spontaneously, if the party have but resolution to persevere. The long continuance of opiates requires an increase of the dose, which produces costiveness, indigestion, general weakness, and a tribe of nervous systems, very similar to those which are the consequences of dram-drinking, which the taking of opiates in large quantities very much resembles.

I have thus finished what I have to say on the use of the medicines, which are calculated to answer the principal indications of cure. The reader will perceive easily that this extends only to diseases of
a certain

a certain description, and respects in them only those remedies, the propriety of whose use is obvious to any person of sense and tolerable education, without assistance from professional study or information. I hope I have advanced nothing that is liable to mislead, and I trust that what is advised, will tend to make what future medical operations may be necessary more successful. Physicians often justly lament, and often when it is too late, the imprudent measures that have been taken previous to their being employed. To obviate this, in some measure, is the principal intention of the present essay, which I have put into the present form, as being comprized in smaller compass than if I had treated of the diseases separately, and as I think more easy to be understood.

Some general directions relative to the treatment of sick persons, which could not so properly be introduced under the several indications.

CLEANLINESS is a matter of the greatest consequence to the cure both of acute and chronical disorders. Every person who is indisposed ought to wash the face and hands, and feet occasionally, with at least equal regularity as in health. The ease and comfort this affords to sick persons, those especially who labour under acute disorders, can scarcely be imagined, except by those who have experienced it.

Change

Change of linen is a highly necessary article. Every person ill of a fever ought to have clean linen for the head and body every day, and clean sheets every three days, or oftener, if the perspiration be large. Many causeless fears formerly prevailed, and still subsist, concerning the airing of linen. It is necessary undoubtedly that this should be dry, but this is best insured by its being exposed when perfectly clean to a fire, and dried by that means only. Linen that has been worn, or sheets that have been lain in, with a view to airing them, are unfit for sick persons, as they are in reality fouled and damped by such absurd care. The room itself should be swept daily, and every offensive thing removed as soon as possible, and nothing suffered to remain in the room that is not immediately necessary to the patient. Whatever food or drink he does not consume should be removed immediately after as much as is necessary be taken, and no person suffered to take food in the room except the sick person.

It is necessary that the utmost care be taken that the victuals, and whatever besides be prepared for the sick, be dressed with the greatest regard to cleanliness. The stomach in such cases is always delicate, and it is of the greatest consequence to indulge it in this respect.

Change

Change of Air and Coolness are nearly connected with Cleanliness, and equally necessary to be attended to. Every person confined to their bed with any feverish complaint, should have the door and window of the room opened for a quarter of an hour twice at least in the twenty-four hours. If the weather be very severe, the curtains may be drawn so as to prevent the current of air from blowing on the sick person; but if the weather be mild or warm, the door and windows should be open through the day and even the night. There cannot be the least necessity why the air should be warmer for a person ill of a fever than for a person in health, but many reasons why we should wish it cooler. To keep a sick person's chamber well aired, (I mean here not by fires, but by opening the doors and windows) contributes not only to the benefit of the sick person, but to the safety of the attendants.

Many fevers, which were at first simply inflammatory, have become by heat, confinement of air, and other improper treatment, putrid and contagious. It is obvious that if the complaint originally be of a putrid tendency, these cautions become doubly necessary.

The proportion of bed-clothes is a circumstance of great moment. These must be measured partly by

by the age of the patient and nature of the complaint, but principally by the feelings of the sick person. I have often observed, that much of the restlessness attending fevers, which is so troublesome and fatiguing a symptom, and so exhausting of the strength of the patient, is owing to the quantity of bed-clothes. Too much heat naturally produces a desire to change the heated place for one that is cooler; but if the body were not uneasily hot, no such impatience would take place.

Quiet is another important article. Officious curiosity is apt to make many persons intrude upon sick people, who have very little real concern on their account. This should by all means be discouraged, and no more persons admitted to the chamber of the sick than are necessary to attend him. The admission of others tends only to foul the air, increase the heat, and prevent the rest of the sick.

The proper administration of food is a matter of the utmost concern. At the beginning of inflammatory complaints, provided the patient be young and robust, some abstinence may be proper; but in the advanced state of all disorders, both acute and chronical, it is necessary to pay great attention to the article of food. As long as any considerable degree of fever remains, it is proper to use a vege-

table diet. Milk boiled with bread, bread and rice puddings, roasted apples, and the like, are all proper; and for drink, toast and water, whey, or (if it be good) small beer; but no stronger liquor, and least of all distilled spirits. A most absurd and unhappy notion still prevails among many of the lower people, that sick persons are in want of something cordial to support their strength, and keep up their spirits; in consequence of which, they often, in spite of any directions to the contrary from those who are better qualified to judge, give them some strong fermented liquor, as ale or strong beer, and sometimes rum, brandy, gin, and the like. It is a melancholy reflection, that numbers fall victims to this odious opinion, which, as well as many other instances of impertinent interference with the sick, ought to be discouraged as much as possible.

The mode of giving food to a sick person is worthy regard. It should always be in small quantity, and no more should be brought into the patient's sight than it may be expected he will be able to take at a time. This should be done often in the day, and even during the night, and without waiting for its being asked for by the sick person, who is often able to take food when he has not spirits to ask for it. It must not however be pressed with any importunity, which is more likely to excite disgust than appetite.

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The support of the spirits of a person labouring under disease, is as necessary towards his cure as the administration of medicines. Every person that is ill, should be comforted with hopes of recovery, and chearful prospects of life. To foretel a person's death in his presence, who is then ill of an acute complaint, has no small influence in verifying the prediction. Even those whose profession leads them to recommend religion to others, should be careful of dwelling too much upon gloomy subjects, and giving people dispiriting ideas of their situation.—Repentance, and amendment of life, are no doubt in many instances necessary to be advised; but great care must be taken to administer, together with advice, that greatest of all cordials—*HOPE*.

I have before mentioned, that an opinion prevailed among the lower ranks of people, that bleeding at certain times of the year was a salutary practice, whether any immediate necessity appeared to make it proper or not. The same absurd notion prevails with respect to the taking purgative medicines. It is needless to say more here, than that such habits are extremely improper to be commenced, and should be by all means if possible prevented. If, however, they have been begun, we must not precipitately direct them to be omitted,

but to diminish the quantity of blood taken, and to omit the purgative, and in time lay them both aside altogether. I am inclined to think, that the almanacks, in which such advice has been for many ages preposterously inserted, have been the principal causes of such absurd notions being carried into practice for so long a course of years. I see it has been of late omitted in some, and hope the others will follow the example.

A prejudice subsists among many people of the lower ranks, against every remedy that does not operate upon them in some sensible manner as an evacuant. They do not measure its good effects by the change it produces upon the health, but by its increasing their natural discharges. This is an unfortunate prepossession, as several of the most effectual remedies act for the most part without any sensible alteration in the animal system, save the cessation of the disorder. This is the case in general with the Peruvian bark, when given as a cure for the intermittent fever; in which, if medicines of the evaculatory kind were to be joined with the bark, they would, unless very gentle in their operation, frustrate the good effects of the principal remedy. It is proper on this account, whenever medicines of this kind are given, to forewarn those to whom they are administered, that they are not to expect from them any other effect than an abatement

ment of the disorder which they were intended to remedy:—a condition surely sufficient to satisfy any reasonable person.

The common people are too apt to estimate the efficacy of medicines, as they do that of other things, by their pecuniary value and their scarcity. They have no idea that Providence has made the most useful things in medicine, as well as food, cheap and common, and that expence in such articles is oftener necessary to flatter and comply with effeminate delicacy, than to add to the real efficacy of a remedy. The poor who are in hospitals do not receive, in proportion to their numbers, less relief than the rich in their splendid apartments; though in the former case nothing be conceded to prejudice, fancy, and caprice; and in the latter, it makes the most important consideration. It is incumbent, therefore, on all who take the charge of the lower people when sick, to combat this mistaken opinion, and to endeavour, if possible, to convince them, that the best remedies are in many instances the cheapest.

Those who take the charge of sick persons should be cautious that the same course of medicines be not continued too long a time together. It should be understood, that medicines (at least the greatest part of them) are more calculated to *restore* health than

than to *preserve* it. We should therefore be careful to recommend, to persons in health, to be contented with the happiness they enjoy in that respect, and not to attempt to improve what cannot be amended, but may easily be impaired. Some ignorant people are prepossessed with a notion that it is *wholesome*, as it is termed, to drink several infusions of herbs, as of flowers of chamomile, of centaury, and several others. But such trials are not only unnecessary, but likely to be injurious. The taking of bitters in large quantities, for a long time together, hurts the tone of the stomach, instead of mending it, as was found by fatal experience of those who took the Portland Gout Powder, which destroyed nearly all who tried it. This powder was nothing else than such bitter herbs as are commonly drank in tea, or brewed with malt liquor in the form of purl. What is here said, is not meant to insinuate that bitters, *properly* and *moderately* used, are not very useful remedies. It is the excess only that is censured.

Another reason why we should be upon our guard against continuing the use of the same medicines for a long time is, that it is apt to introduce that most destructive of all habits, *Dram-drinking*. Many of the tinctures recommended in this way are little else than drams concealed under a medicinal disguise, and as such should be with equal caution avoided,

avoided, as far as respects their becoming habitual. I have more than once seen a habit of this odious kind introduced among women, particularly by these means. It is not so likely to happen to the lower ranks, as to those who employ them, for whom this caution is principally meant.

The last piece of advice I shall offer respects Quackery.

Perhaps there is nothing disgraces the police of this country, more than the numerous impositions of this kind that are daily advertised. Scarcely any one of them has not only a greater certainty of success ascribed to it, but is alledged to be infallible in a greater variety of disorders than are curable by all the articles of the *Materia Medica* taken collectively. Some of these boasted remedies are merely frivolous and inert, but others are violent and dangerous in their operation, and highly improper to be trusted to such persons as those who are thus rashly encouraged to take them in an indiscriminate manner. A solution of arsenick is said to have been the basis of a late specifick for fevers, and I am well informed has in several instances destroyed the patient. These instances, however, are carefully concealed, whilst every escape is carefully recited as a cure, owing to the remedy so given.

No piece of humanity would be greater than to
preserve the ignorant and uneducated of the lower
ranks from fastening their health and money to
poisoning food and interested knavery.

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